

REMARKS

Claims 12-21 and 29-38 are patentable over Basham et al.

The Examiner states:

Basham discloses a **pressure regulating system** which includes a pressurized gas source, an inlet regulator 28 of conventional design supplying gas to an inlet 29 of a pressure controller which includes an inlet servo-valve 30 that feeds inlet gas into a manifold 23 (col. 1 lines 21-37). **More than one gas can be utilized** (col. 5 lines 11-26 and col. 5 line 66-col. 6 line 19). (Office Action, page 2, emphasis added.)

The Examiner's statement is respectfully traversed. The Examiner cites Basham et al. at col. 5, lines 11-26 and col. 5, line 66 - col. 6, line 19 in support of the assertion that "More than one gas can be utilized". Applicant respectfully submits that the cited section of Basham et al. does not teach or suggest that "More than one gas can be utilized" and Applicant requests clarification of the basis of the Examiner's assertion. Specifically, at col. 5, lines 11-26 and col. 5, line 66 - col. 6, line 19, Basham et al. teaches:

Referring to FIG. 1 and/or FIG. 1A, a **pressurized gas source 41** is connected to the inlet of an inlet regulator or flow controller 21, as indicated by numeral 41A. The outlet of inlet regulator 21 is connected by a "cross" coupler 24 (all 4 ports of which are in open communication with each other) to an inlet of a "fast" or coarse adjustment inlet solenoid valve 30. The outlet of inlet solenoid valve 30 which is connected to an inlet of manifold 23, which has a volume  $V_0$ . The outlet of inlet regulator 21 also is coupled by cross coupler 24 to the inlet of a flow restrictor 25, the outlet of which is coupled by another cross 37 to the inlet of an outlet flow controller or regulator 26. The outlet 42 of regulator 26 is coupled to a "reference" pressure. Inlet and outlet regulators 21 and 26 are commercially available constant differential flow controllers. (col. 5, lines 11-26, emphasis added.)

The purpose of restrictor 25 (FIG. 1) is to minimize the constant flow through the inlet and

outlet flow controllers 21 and 26. The flow controllers require constant flow to perform their function which is to maintain a constant differential pressure across valves 30, 33, 35, and 32, regardless of the values of  $P$ ,  $P_1$ , and  $P_2$ . Note that the flow through the regulators is completely independent of the volumes  $V_o$  and  $V_t$ . The constant differential pressure across the control solenoid valves helps eliminate one of the pressure control variables, which is changing differential pressure across the valve as pressures  $P$ ,  $P_1$ , and  $P_2$  change.

Flow restrictors 22 and 27 are used to slow down the establishment of counter-pressure on the diaphragms of inlet regulator 21 and outlet regulator 26, respectively, so that the rate of pressure increase or decrease of manifold pressure  $P$  as a result of operating a valve remains more or less constant regardless of variations of the test volume  $V_t$ . This is because the maintenance of  $\Delta P$  across the valves is dependent only on the "resistance" of these flow restrictors and the volume associated with the control diaphragms. (col. 5, line 66 to col. 6, line 19.)

Accordingly, Basham et al. teaches a pressurized gas source 41 and the Examiner has failed to callout where Basham et al. teaches or suggests "More than one gas can be utilized".

Further, there would be no motivation for one of skill in the art to use more than one gas since Basham et al. is directed at a pressure regulating system. More particularly, the Examiner admits:

**However, the reference remains silent as to mixing gases in a gas manifold.** (Office Action, page 2, emphasis added.)

To cure this glaring deficiency, the Examiner asserts:

It is noted that a gas manifold contains more than one gas. The skilled artisan knows that a gas manifold can be utilized to mix gases. **It would have been obvious to utilize same with the expectation of obtaining a mixed gas.** (Office Action, page 3, emphasis added.)

The Examiner's statement is respectfully traversed. As noted by the Examiner at page 2 of the Office Action: Basham discloses **a pressure regulating system** (emphasis added). Specifically, Basham et al. is directed at:

... a method and apparatus **for rapidly and accurately setting and stabilizing pressure in closed volumes as is needed for testing and/or calibrating pressure sensitive devices**, such as pressure transducers and the like. (col. 2, lines 48-52, emphasis added.)

Thus, the "pressurized gas source 41" is used simply to pressurize the system and there would be no motivation to use "More than one gas" to accomplish the pressurization.

For at least the above reasons, Basham et al. does not teach or suggest a method comprising:

opening a first gas manifold inlet valve coupled between a first regulator and a gas manifold;  
regulating a flow rate of a flow of a first process gas through said first gas manifold inlet valve to said gas manifold with said first regulator;  
opening a second gas manifold inlet valve coupled between a second regulator and said gas manifold; and  
regulating a flow rate of a flow of a second process gas through said second gas manifold inlet valve to said gas manifold with said second regulator, wherein said first process gas and said second process gas mix in said gas manifold,

as recited in Claim 12, emphasis added. Accordingly, Claim 12 is allowable over Basham et al. Claims 13-20, which depend from Claim 12, are allowable for at least the same reasons as Claim 12.

Claims 21, 29, 32, 35, 36, and 38 are allowable over Basham et al. for reasons similar to Claim 12. Claims 30-31, which depend from Claim 29, are allowable for at least the same reasons as Claim 29. Claims 33-34, which depend from Claim 32, are allowable for at least the same reasons as Claim 32. Claim

37, which depends from Claim 36, is allowable for at least the same reasons as Claim 36.

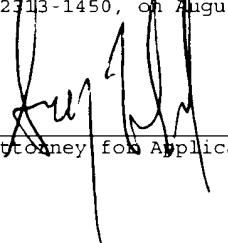
For the above reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Conclusion

Claims 12-21 and 29-38 are pending in the application. For the foregoing reasons, Applicant respectfully requests allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicants.

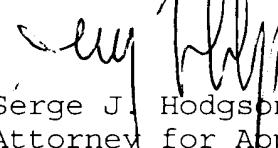
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Attorney for Applicant(s)

August 19, 2003  
Date of Signature

Respectfully submitted,

  
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